

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027601**Date Inspected:** 14-May-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Component**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

**In Process Visual Inspection****Tower**

This QA observed, at random intervals, ABF/JV qualified welder Jin Pei Wang #7299 performing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-F1200A. The joint being welded is a 10mm fillet weld at tower doubler plate below 9m elevation designated as P937-1, A28.

During welding, ABF Quality Control (QC) Bernard Docena was noted monitoring the welding parameters. Welding parameters were recorded as (A=128).

This QA observed, at random intervals, ABF/JV qualified welder Wai Kit Li #2953 performing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair. The joint being welded was tower shear plate designated as ESW weld, location "F" from face "A".

Dimensions excavated for this repair were: (Y=7305mm, I=160mm, W=15mm, D=12mm)

During welding, ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters.

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Welding parameters were recorded as (A=130).

This QA observed, at random intervals, ABF/JV qualified welder Wai Kit Li #2953 performing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair. The joint being welded was tower shear plate designated as ESW weld, location "F" from face "B".

Dimensions excavated for this repair were: (Y=8170mm, I=230mm, W=50mm, D=40mm)

During welding, ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters. Welding parameters were recorded as (A=130).

This QA observed, at random intervals, ABF/JV qualified welder Richard Garcia #5892 performing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair. The joint being welded was tower shear plate designated as ESW weld, location "P" from face "A".

Dimensions excavated for this repair were: (Y=100mm, I=660mm, W=67mm, D=52mm)

During welding, ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters. Welding parameters were recorded as (A=131).

### Ultrasonic Testing

This QA performed Ultrasonic Testing (UT) of 60mm to 70mm transition Complete Joint Penetration (CJP) ESW butt splice welds. Testing was performed from one side only and is for in-process information purposes. Welds were evaluated in accordance with AWS D1.5-2002, section 6, table 6.4. This QA observed no rejectable or recordable indications at the time of testing.

Locations tested are as follows:

ESW "A"- Y= 4000mm ~ 5000mm.

ESW "B"- Y= 3660mm ~ 4620mm.

ESW "C"- Y= 3260mm ~ 4450mm.

ESW "D"- Y= 3800mm ~ 5000mm.

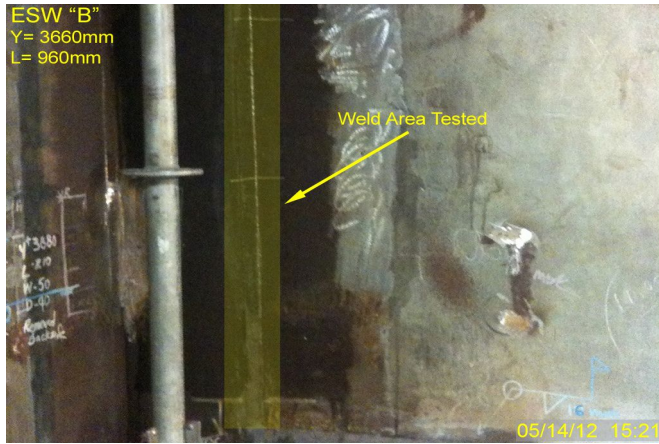
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Clifford, William

Quality Assurance Inspector

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**Reviewed By:** Levell, Bill

QA Reviewer